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Nobel Prize Winner Czeslaw Milosz Will Read at Library on April 20

Czeslaw Milosz, who won the 1980 Nobel Prize for Literature, will read his poetry in the Library's Coolidge Auditorium on Tuesday, April 20. William J. Smith, former Library of Congress poetry consultant, will read translations of Mr. Milosz' work.

The reading, sponsored by the Gertrude Clarke Whittall Poetry and Literature Fund, will begin at 8 p.m. No tickets are required.

Czeslaw Milosz

Czeslaw Milosz was born in Lithuania in 1911. A few years later, his father, an engineer, moved the family to Russia and, after World War I, to Poland. The younger Milosz grew up in Wilno, attending Catholic schools there. At college, like many young Polish ideologues of his generation, he joined literary-political groups that were influenced by Marxist thought. He began writing poetry while living in Paris in 1934.

During World War II, he worked clandestinely in Warsaw as a writer and editor for Resistance publications. When the war ended, Mr. Milosz, a socialist, joined the Polish diplomatic service, but broke with the regime in 1951 following the suppression of the coalition government. He then resettled in Paris to continue his writing.

Since 1961, he has been professor of Slavic languages and literature at the University of California at Berkeley, while continuing to translate and to write and publish poems and essays.

Mr. Milosz is the author of several nonfiction works, including *The Captive Mind* (1953), a book about intellectuals and Communism; *Native Realm* (1968), an autobiographical history; and *Emperor of the*

Also in This Issue . . .

Clara Lovett of Baruch College Named New Chief of European Division 91–92

Lecture on Percy Grainger Set for April 6 90

New Climate-Control Equipment Readied for Gutenberg and Mainz Bible Cases 90–91

NYPL Chairman Andrew Heiskill Is among Recent Visitors 92–93

Chinese and Korean Section Prepares Bibliographic Survey of Materials on Automation of Chinese 95–100

April 15 Outdoor Concert Will Present The Irish Tradition 92

CONSER Project File, Monthly Updates Lead List of Library Publications 93–94

Archive of Folk Culture Surveys Folklife Programs, Publications 93

Earth: Modes of Eccentric Vision (1977), a collection of writings on Russian and Polish literature. His *Selected Poems* was published in the United States in 1973. A subsequent collection, *Bells in Winter*, appeared in 1978. Farrar, Straus and Giroux published Mr. Milosz' novel, *The Issa Valley*, in 1981.

Lecture on Percy Grainger Will Be Given on April 6

British scholar John Bird, author of the standard text on the life and work of Percy Grainger, will give a lecture on that celebrated pianist, composer, and collector of folksongs on Tuesday, April 6, in the Library's Whittall Pavilion. The program, sponsored by the American Folklife Center and the Music Division, will begin at 4:30 p.m.

Born in Melbourne, Australia, on July 8, 1882, Percy Grainger went to Germany as a young man to study piano with James Kwast in Frankfurt. He then moved to England and made it his home during his early years of concert performing, which began in 1900. During these years, he also studied with Ferruccio Busoni in Berlin and later worked with Frederick Delius and Edvard Grieg. In 1915, he settled in the United States, where he added an academic role to those of composer and performer, teaching summer sessions at the Chicago Musical College from 1919 to 1931 and later serving as academic chairman of the Music Department at New York University during 1932–33. In 1935, he established the Grainger Museum at the University of Melbourne to house his manuscripts and rich collection of musical souvenirs. He died in 1961.

Grainger pioneered the use of the cylinder phonograph for recording English folk music and made an extensive collection of recordings from England, Denmark, and Polynesia. Folk musical traditions influenced many of his own compositions, such as *Lincolnshire Posy, Lord Peter's Stable-Boy,* and the well-known *Country Gardens.* The collections of the Library of Congress include copies of Grainger's field recordings and related manuscript materials.

The April 6 program is open to the public free of charge. No tickets are required.

The *Library of Congress Information Bulletin* is issued weekly by the Library of Congress and distributed free of charge to publicly supported libraries and research institutions, academic libraries, learned societies, and allied organizations in the United States.

Comparable institutions and organizations in other countries may arrange to receive the *Bulletin* on the exchange basis by applying in writing to the Library's Exchange and Gift Division. All other correspondence should be addressed to the LC *Information Bulletin*, Information Office, Library of Congress, Washington, D.C. 20540.

Protecting the Library's Treasures

New and improved climate-control equipment will replace the older, less efficient units in the cases exhibiting on permanent display two of the Library of Congress's greatest treasures—the Gutenberg Bible and the Giant Bible of Mainz.

Displayed in the Great Hall of the Library, the cases are modeled after the one designed by Michelangelo Buonarotti for the Laurentian Library in Florence, Italy. Aesthetically and historically, the Bibles and their cases are a perfect match. From the perspective of preserving these priceless possessions, the cases had required constant monitoring because they were not airtight and thus it was difficult to maintain the proper temperature and relative humidity levels.

Using the most up-to-date technology available and based on experiments conducted at the Library, the U.S. Capitol, and at the Gettysburg Battlefield Museum, the Library's Preservation Office commissioned

Present from the Preservation Office during the removal of the Giant Bible of Mainz to the Rare Book and Special Collections Division were (left to right) George Hall, Robert E. McComb, and Thomas C. Albro II. The Gutenberg Bible will remain on view during the coming weeks as the cases are refitted, one at a time, for their new climate-control equipment.

the firm of Parameter Generation Control Inc. of Black Mountain, N.C., to build the new, self-contained climate-controlled units. In order to make maximum use of the original design, the firm used a mockup of the display cases during the development and testing stages.

Robert E. McComb, physical scientist in the Library's Preservation Research and Testing Office, has been in charge of development, testing, and installation. J. Michael Carrigan, Jr., former exhibits officer, assisted in the design, and Margaret R. Brown of the Restoration Office prepared three-dimensional drawings and a scale model.

"Each unit is totally self-contained," says Dr. McComb, "with outside dimensions of 43 inches high, 29 inches deep, and 39 inches wide. Built in two tiers, the lower part houses a one-half-horsepower, freon-driven refrigeration system which cools a water and glycol solution housed in a heat exchanger in the upper part. The unit maintains a constant temperature of 10 degrees centigrade (50 degrees Fahrenheit) and a relative humidity of 50 percent with a tolerance of one percent while the outside temperature and humidity levels may fluctuate widely between 60 and 85 degrees and 25 and 70 percent, respectively. The advantage of a self-contained unit over other designs," noted Dr. McComb, "is that the unit can be easily removed for servicing without violating the physical integrity of the display area."

The backs of the cases have been modified to accept the new equipment without altering the appearance of the Michelangelo design of the front and the display area. "The Library of Congress Preservation Office is pleased to have played a principal role in providing a practical solution to the effective control of the environment in older display cases," said Peter G. Sparks, chief, "not only to insure the safety of our treasures on display but also to make this information available to our colleagues in libraries and archives as part of our National Preservation Program."

Clara Lovett of Baruch College Will Head LC's European Division

Historian Clara M. Lovett, assistant provost of Baruch College, City University of New York, has been named chief of the Library's European Division, Librarian of Congress Daniel J. Boorstin has announced. She will join the Library staff on June 28. The appointment follows a nationwide search.

Among her duties as assistant provost of Baruch College has been the supervision of the directors of the college library and the Educational Computer Center. She also serves as professor of history and has served as chair of the History Department at Baruch College. Earlier she was assistant professor of history at the State University of New York at Oneonta. Recently, she has lectured and led seminars at the Foreign Service Institute of the U.S. Department of State.

Clara M. Lovett

Born in Trieste, Italy, Dr. Lovett received a bachelor of arts degree from the School of Modern Languages, University of Trieste, in 1962. Undergraduate work included studies at Cambridge University. She received a Ph. D. in modern European history from the University of Texas in Austin in 1970.

Dr. Lovett is the author of numerous scholarly papers, articles, and books in her field of specialization, the 19th-century movement for Italian unification known as the Risorgimento. Prize-winning writings include *Carlo Cattaneo and the Politics of the Risorgimento* (Nijhoff, 1972), which won the 1970 Dissertation Award of the Society for Italian Historical Studies, and *Guiseppe Ferrari and the Italian Revolution* (University of North Carolina Press, 1979), which won the 1976 Phi Alpha Theta Manuscript Award. Her latest publication is *The Democratic Movement in Italy, 1830–1876*, published last year by Harvard University Press. Dr. Lovett also edited, with C. R. Berkin, *Women, War, and Revolution: Original Essays* (Holmes & Meier Publishers, 1980).

Her professional associations include the Council on European Studies, the Society of Italian Historical Studies, the American Association for the Advancement of the Humanities, the American Historical Association, the Berkshire Conference of Women Historians, and Phi Alpha Theta.

In addition to publication awards, Dr. Lovett has

been the recipient of research fellowships from the Guggenheim Foundation, the Woodrow Wilson Center in Washington, D.C., the Bunting Institute of Radcliffe College, and the American Council of Learned Societies.

As chief of the European Division, Dr. Lovett will administer a division which, until the Library's reorganization of 1978, was known as the Slavic and Central European Division. The division is now responsible for providing a variety of services relating to the Library's book collections from and about the countries of continental Europe (excluding the Iberian Peninsula, whose literature is the responsibility of the Hispanic Division).

First Outdoor Folklife Concert Will Present The Irish Tradition

The Irish Tradition, young musicians now living in the Washington, D.C., area, will perform the first concert of the American Folklife Center's 1982 outdoor concert series on Thursday, April 15. The series will continue with a concert on the third Thursday of each month through September.

The performance will be held from 12 noon to 1:30 p.m. on the Neptune Plaze in front of the Thomas Jefferson Building. No tickets are required, and the event is open to the public. In the event of rain, the concert will be held indoors.

The leader of The Irish Tradition, Brendan Mulvihill, has won the All-Ireland Fiddle Championship on several occasions. He will be joined by Billy McComiskey playing the accordion and button accordion and singer Andy O'Brien on guitar. Since 1975, when they began performing together, they have become well known for their traditional Irish instrumental music, work songs and ballads, and arrangements of old harp tunes.

Brendan Mulvihill, Billy McComiskey, and Andy O'Brien

The **Juilliard String Quartet will continue its performances of the entire cycle of Beethoven's string quartets** with performances on April 8 and 9 at 8 p.m. in the Coolidge Auditorium (see the March 12 issue of the LC *Information Bulletin*, p. 78, for complete details). For these two concerts, they will perform the Quartet in E flat major, Op. 127; the Quartet in G major, Op. 18, No. 2; and the Quartet in E minor, Op. 59, No. 2. On April 16, the Juilliard will perform Beethoven's Quartet in C minor, Op. 18, No. 4; Quartet in E flat major, Op. 74 (not Op. 72 as announced); and Quartet in B flat major, Op. 130.

Library Visitors during February

From Abroad

Brazil—Jannice de Mello Monte-Mor, special assistant to the general administration, Getulio Vargas Foundation, São Paulo; Catarina de Souza Lima, director, Audiovisual Division, Brazilian National Archives; Carlos Von Doellinger, coordinator for overall planning, Brazilian Institute for Economic and Social Planning, Brasilia.

Burundi—H. E. Simon Sabimbona, ambassador to the United States, and Melchior Bwakira, ambassador to the United Nations.

Chile—Ricardo Couyoumdjian, professor, Catholic University of Chile, Santiago; Maria Teresa Herrero, chief librarian, Binational Center, Santiago.

China—Zhou Lifang, senior editor, Xinhua News Agency; Wu Zetien and Li Lin, professors, Department of Library Science, Wuhan University; a Ministry of Communications delegation headed by Gao Yuan, director of the Bureau of Science and Technology.

Colombia—Alberto Montoya, president, Autonomous University of Bucaramanga.

England—Marian Hesketh, former librarian at the University of Manchester and Bodleian libraries.

Finland—Elin Tornudd, director of libraries, Helsinki University of Technology Library.

Italy—Giancarlo Graziola, director, Research Center on Arms and Disarmament, Catholic University of Milan.

Ivory Coast—Lancine-Gon Coulibaly, vice president of the National Assembly, and three other members of the National Assembly.

Liberia—Kaddie Kolenky, sub-editor, Foreign News

A recent visitor to the Library's Preservation Office was Andrew Heiskill (above left), chairman of the board at the New York Public Library. Mr. Heiskill discussed preservation techniques such as digital storage of information on optical discs and the impact of mass deacidification on solving the acid paper problem. Pictured with Mr. Heiskill are William J. Welsh, The Deputy Librarian of Congress (center), and Peter G. Sparks, chief of the Preservation Office (right). Mr. Heiskill also visited the Library's Cataloging Distribution Service (CDS) document delivery operation with Dr. Sparks and CDS chief David G. Remington.

Desk, Liberian News Agency, and Pache Sie-Dio, senior public affairs officer, People's Redemption Council.

The Netherlands—C. T. J. Klijs, librarian, University of Utrecht.

Philippines—Annella Manalo, film archivist, University of the Philippines, Manila.

Uganda—A delegation of members of the Uganda Peoples Congress headed by Dr. Olico-Okui, member of Parliament for Kumi North.

Uruguay—Carlos Silgueira, director, Center for Uruguayan Studies, Montevideo.

A Few of the Visitors Expected in April

Kerstin Assarsson-Rizzi, Bibliographic Department, Kungl. Biblioteket, Sweden.

Arlette Dickerson, head, conservation lab, State Archives, Baton Rouge, La.

Voleta Encarnacion, Asia Center librarian, University of the Philippines.

Lin Wusun, deputy editor-in-chief, *Beijing Review*, People's Republic of China.

Library science students from Rutgers University, New Jersey; The State University of New York at Albany; The University of North Carolina at Chapel Hill; North Carolina Central University; and Drexel University, Pennsylvania.

Archive of Folk Culture Surveys Folklife Programs, Publishers

The Archive of Folk Culture of the American Folklife Center is currently compiling for publication a comprehensive directory of folklife resources in the United States and Canada. Such a directory will synthesize the archive's efforts over the past 15 years to maintain and publish separate listings of archives, societies, serial publications, and record companies in North America which specialize in the fields of folklife and ethnomusicology, as well as a list of folklife graduate programs. It will also specify by name and address state folk cultural coordinators and regional cultural organizations.

The archive is now updating the separate lists and mailing them to all those contained therein and to other interested parties for verification and revision. The directory can be an important tool in facilitating communication among those with similar concerns in the field, but will be complete only with input at every level.

The archive would like to learn of any societies, serial publications, record companies, archives, or regional cultural organizations which have recently started business, gone out of business, or changed addresses. All such information, including sample issues, descriptions, catalogs, and other related materials, can be addressed to the Library of Congress, Joseph C. Hickerson, Head, Archive of Folk Culture, Washington, D.C. 20540. Requests for copies of the current listings should also be sent Mr. Hickerson.

Library of Congress Publications

CDS Offers CONSER File, Monthly Update

In conjunction with the Serial Record Division and through arrangement with OCLC, Inc., the Cataloging Distribution Service (CDS) of the Library of Congress will make available copies of the entire CONSER (CONversion of SERials) Project file. The file contains all records contributed or updated by the CONSER participating institutions since the beginning of the CONSER Project in 1975, including those records which have been authenticated by the Library of Congress or the National Library of Canada and which were previously distributed on the MARC Serials Distribution Service.

This second CONSER file was copied from the online CONSER data base at OCLC on August 1, 1981, and converted to the MARC communications format. Since no processing of the file has been performed at the Library of Congress, there are some differences between the records on the CONSER file

and those on the usual MARC Serials Distribution Service tapes. Any of the bibliographic data elements that are valid in the MARC Serials Distribution Service may be present in records on the CONSER file. Local data fields are not carried in the records (except those that are pertinent to the requirements of the Library of Congress) nor are institutional location symbols present.

The second CONSER file contains 339,327 records, over 80,000 more than the number on the first CONSER file which was made available in 1980 and which this file replaces. The purchase price for the second CONSER file is $3,390.

In response to strong interest on the part of libraries and others in the information community and through arrangement with OCLC, the Cataloging Distribution Service will also initiate a monthly tape distribution service for unauthenticated CONSER records. This monthly Unauthenticated CONSER Record Tape Service, in combination with the MARC Serials Distribution Service tapes, would give subscribing institutions who have the second CONSER file the capability of maintaining current, updated CONSER records. The subscription price for the monthly Unauthenticated CONSER Record Tape Service is $2,000 for service from October 1981 through March 1983. A test tape for this service is available from CDS for $100. Documentation related to the CONSER record format is provided with the test tape, as well as with the second CONSER file and the monthly Unauthenticated CONSER Record Tape Service.

Further information about these products and services is available from the Cataloging Distribution Service, Customer Services Section, Library of Congress, Washington, D.C. 20541, tel. (202) 287–1306.

New Publications

Magazines in Special Media. (Reference Circular 81–3) August 1981. This compiles more than 300 magazines produced in media suitable for use by persons who are unable to read conventional print materials, including braille, cassette, disc, large type, Moon type, and open-reel tape. Sources for loan or purchase are indicated. Free on request from the National Library Service for the Blind and Physically Handicapped, Reference Section, Library of Congress, Washington, D.C. 20542.

Volunteer Repair Services. 1981. (6 p.) This brochure briefly describes the program to repair and service talking-book disc and cassette players and related equipment through the volunteer efforts of the Telephone Pioneers of America, a group of senior and retired telephone-industry employees. It is available upon request from the National Library Service for the Blind and Physically Handicapped.

Ongoing Publications

Accessions List: Eastern Africa. ISSN 0090–371X. Vol. 14, No. 6. November–December 1981. Including index for Volume 14, 1981. Continuing subscriptions free to libraries upon request to the Field Director-LOC, American Consulate General, Abdullah Haroon Road, Karachi, Pakistan.

Accessions List: South Asia. ISSN 0271–6445. Vol. 2, No. 1. January 1982. Continuing subscriptions free to libraries upon request to the Field Director, Library of Congress Office, American Embassy, New Delhi, India.

Chinese Cooperative Catalog. (Microfiche edition) ISSN 0095–1072. January–October 1981 and January–December 1981 cumulations. Available from the Cataloging Distribution Service, Library of Congress, Washington, D.C. 20541, at a cost of $300 in a bimonthly, continuously cumulative microfiche edition.

LC Classification—Additions and Changes. ISSN 0041–7912. List 204. October–December 1981. (91 p.) For sale by the Cataloging Distribution Service for $40 for the 1981 subscription year consisting of four quarterly issues or $10 a single issue.

National Union Catalog. ISSN 0028–0348. 1980 Annual Cumulation. Part 13: Schroeder, R-Southern R . . . (1,022 p.) Part 14: Southern S . . -Texas. A&M (1,022 p.) Part 15: Texas. Adult-United States. Congress. Senate. Committee on H . . . (1,022 p.) Part 16: United States. Congress. Senate. Committee on I . . .-Vergara, B (818 p.) For sale by the Cataloging Distribution Service at $1,275 for the 1980 annual cumulation.

News. ISSN 0160–9211. Vol. 13, No. 1. January–March 1982. This report on national and international activities in library services for blind and physically handicapped individuals is distributed quarterly to the national network of cooperating libraries and agencies serving blind and handicapped readers. Free on request from the National Library Service for the Blind and Physically Handicapped, Library of Congress, Washington, D.C. 20542.

March 26, 1982

STAFF NEWS

John W. Boyle Dies

Copyright Employee for 35 years

John W. Boyle, a retired employee of the Copyright Office, died on March 2. He was 65 years old. Mr. Boyle, a copyright bibliographer, retired at the end of 1973 after 39 years of Federal service.

He had come to the Copyright Office in 1934 upon graduation from Eastern High School in Washington, D.C., and, with the exception of military service, had remained with the office throughout his Government career.

Noted for his extensive knowledge of the older records of the Copyright Office, he was a valuable source of technical information about the files and their contents, and had received a special award in recognition of his work.

During World War II, he was in the Armed Forces from 1942 to 1945 and served in the Pacific theater of operations with the Americal Division of the U.S. Army. He is survived by his wife, Lillian, and by four children and two grandchildren. Interment was in Parklawn Cemetery, following funeral services at Calvary Lutheran Church in Silver Spring, Md.

William Sartain Retires

William G. Sartain, head of the Research Facilities Section, General Reading Rooms Division, retired on March 15 after more than 35 years of service with the Library of Congress.

Beginning in 1947 as a deck attendant in the former Stack and Reader Division, Mr. Sartain progressed through the ranks of that division—with a brief detour to the Rare Book Division—serving successively as stack inspector, stack supervisor, head of the Stack Service Section, and head of the Reader Services Section. He was named assistant chief of the division in 1976. In the Library's 1978 reorganization, he became assistant chief for collections improvement in the new Collections Management Division.

Through his many years of experience in servicing, maintaining, and managing the general collections, Bill Sartain gained an incomparable knowledge of the Library's book resources. He could find volumes that all others had given up for lost and thereby developed an admiring clientele of readers who regularly turned to him for help with the most difficult searches. One researcher spoke for many when she wrote to commend Mr. Sartain for the "persistent energy and skill which enabled you to find [some books] in a half day, after a number of people had spent six weeks in searching for them unsuccessfully."

Bill Sartain

Mr. Sartain served for nearly a year as acting assistant chief in the Serial and Government Publications Division before moving to the General Reading Rooms Division in February 1981. As head of the Research Facilities Section he was responsible for managing the Library's study shelves and study desks and providing service to scholars in residence at the Library of Congress. In this position, as in all of his previous jobs at the Library, Bill Sartain used his extensive knowledge of the Library to serve this institution with dedication and energy. He will be missed by readers and colleagues alike.

Online Users Group Hears Program on CDS

On February 26, David G. Remington, chief of the Cataloging Distribution Service (CDS), spoke to 60 staff members attending the Online Users Group program on automation activities in CDS. He covered

a range of activities, including the installation of a data base management system to support online order fulfillment activities, the use of laser demand printing capabilities to provide weekly notices (CDS ALERT Service) based on subject selection from new MARC records, the activities by CDS analysts and programmers to create software systems to produce the new index/register microfiche format for the *National Union Catalog* and related catalogs, and the optical-disk-based input, storage, and demand printing system (DEMAND) for over five million non-MARC records. Mr. Remington described the nature of the optical disk technology associated with the state-of-the-art DEMAND System, which is in the final stages of installation in the new CDS facilities in the Adams Building. In a question-and-answer session following the presentation, Mr. Remington elaborated on the implications of storing documents in digital form on optical disks for libraries and information users.

Smoking Areas Designated For Madison Building

The general policy of the Library prohibits smoking in Library buildings (see LCR 1817–7, *Smoking in the Library of Congress,* March 20, 1981). The Associate Librarian for Management, however, has designated certain areas in the James Madison Memorial Building as smoking areas. Detailed floor plans identifying smoking and nonsmoking areas in the Madison Building are on file in the Office of the Associate Librarian for Management and in department offices.

Smoking is prohibited at all times in collections storage areas (including book stacks), collections processing areas (such as cataloging work areas), reading rooms and study facilities (except where expressly designated otherwise), auditoriums, elevators, corridors, lobbies, and classrooms.

Smoking is permitted in designated areas, including certain offices, restrooms, and lounges, and in portions of the cafeteria and coffee shop.

Requests from department heads for redesignating specific areas for smoking should be submitted to the Associate Librarian for Management in accordance with section 4 of LCR 1817–7.

Smoking designations for other Library of Congress buildings are being reviewed.

Activities of Present and Former LC Staff Members

Ronald F. Chapman, a member of the Library's special recruit class of 1968 and now the head librarian at Honolulu Community College, is the author of a new book entitled *Leonard Wood and Leprosy in the Philippines: The Culion Leper Colony, 1921–1927* published by the University Press of America, P.O. Box 19101, Washington, D.C. 20036 (ISBN 0–8198–1977–6) and available from the publisher for $10.25. A major part of the research for Dr. Chapman's book was done in the Library of Congress Manuscript Division, where he used the collections of Leonard Wood, W. Cameron Forbes, H. Ross McCoy, Hermann Hagedorn, and other contemporaries of Wood.

Marilyn Hamilton of the Music Section, Special Materials Cataloging Division, will dance with the St. Mark's Dance Company in their spring program at the Prince George's Publick Playhouse, 5445 Landover Rd., Cheverly, Md., on April 16 and 17 at 8 p.m. General admission tickets are $6, and inquiries for reservations may be placed by calling 277–1710 or 547–1936. The company will also perform Stravinsky's "L'Histoire du Soldat" at St. Mark's Church at the corner of Third and A Sts. S.E. on Capitol Hill at 8 p.m. on Saturday, April 24. Admission is free. Further information may be obtained by calling either Janet Piez at 338–4959 or Mary Craighill at 547–1936.

Virginia Haviland, chief of the Library's Children's Literature Center until her retirement last year, has been elected by the Council of the American Library Association to honorary membership for life in the association. This honor—the highest that ALA can bestow on an individual—is reserved for "a living citizen of any country whose contribution to librarianship or a closely related field is so outstanding that it is of lasting importance to the advancement of the entire field of library science," according to ALA executive director Robert Wedgeworth. The honorary membership will be conferred on Miss Haviland

Credit Union Move Planned

The Library of Congress Federal Credit Union will open for business in its new office in the James Madison Memorial Building on Tuesday, April 6. The office is located in room LM 634 on the sixth floor of the red core of the building. The telephone number for the Credit Union will remain the same—287–5852.

In order to prepare for the move and the opening of the office, the Credit Union will be closed for business on Friday, April 2, and Monday, April 5.

at the first general session of the ALA Annual Conference in Philadelphia, Pa., at 4 p.m. on Saturday, July 10.

On March 5, **Alan Jabbour,** director of the American Folklife Center, presented a paper on "Folklore Protection and National Patrimony: Developments and Dilemmas in the Legal Protection of Folklore" during a panel on "National Policies and Cultural Patrimony" at the annual meeting of the Latin American Studies Association in Washington, D.C. The paper reported and reflected on the growing international discussions regarding legal protection of folklore, in which Dr. Jabbour has participated as a representative to meetings of a working group sponsored by UNESCO and the World Intellectual Property Organization.

Eugenia Useriu, a cataloger in the French Section, Shared Cataloging Division, participated at the Modern Language Association (MLA) annual convention in New York City in December. She presided at the Seminar on Romanian Language and Folklore organized by the Romanian Studies Association of America (RSAA) on December 28. In the second part of the seminar, which treated the language of collected folklore, Mrs. Useriu briefly mentioned folklorists, their collections, and studies published in and outside of Romania since the 17th century. She emphasized that the great folklorists parallel those whose names are forgotten or unknown, but whose contributions are, nevertheless, considerable.

Mrs. Useriu also attended the seminar on "Romanian in Soviet Moldavia" on December 29, at which she informed the audience that although the increase of Bessarabian books and periodicals fluctuates, a few hundred are annually written in Moldavian with the Cyrillic alphabet. She also demonstrated the Library of Congress romanization of a Moldavian text which was recognized immediately as Romanian in a regional linguistic form.

Preservation of Paper and Textiles of Historic and Artistic Value II, edited by **John C. Williams,** the Library's former preservation research and testing officer, was awarded honorable mention in the sixth annual Professional and Scholarly Book Awards recently presented by the Association of American Publishers. The award was presented in the category of books in the physical and earth sciences published in 1981. A fuller description of this work, which was published by the American Chemical Society, appeared in the May 29, 1981, issue of the LC *Information Bulletin* (p. 180). In addition to Mr. Williams, other LC Preservation Office contributors to the volume were **George B. Kelly, Adrian C. Sclawy, Lucia Tang,** and **Peter Waters.**

John A. Wolter, chief of the Geography and Map Division, is the author of an article entitled "Johann Georg Kohl and America" that appeared in the December issue (No. 17) of *The Map Collector.* Kohl was a 19th-century German geographer-librarian who visited the United States from 1854 to 1857, bringing with him a collection of copies of several hundred important maps dealing with the discovery and exploration of North and South America. Copies of some 600 of these maps, several manuscript volumes of historical material and a few original maps, including three superb large-scale descriptive maps in color showing progressive states in the cartographic knowledge of the east, gulf, and west coasts were purchased by the Coast Survey from Kohl at that time. They are at present included in the Library's cartographic collections.

Personnel Changes

Appointments: Christopher Arntzen, recruitment and placement specialist, GS–11, Pers R&P, 10555; Mary Clark, clerk-typist, GT–4, E&G, 10592; Nancy Shaffer, assistant division secretary, GS–5, LL AB, 20029; James Winther, engineer, audio/video/film systems, GS–12, M/B/RS, 10534.

Temporary Appointments: Eleanor Conner, reference files assistant, GS–3, CRS L, 10597; Leonard Dunning, camera processor and blueprint operator trainee, GT–3, Photodup, 10625; Marguerite Edwards, clerk-typist, GS–4, MARC Ed, NP; Aline Martinez, legal information technician (trainee), GS–4, LL O, 10697.

Reappointment: Brenda Haney, legal clerk (typing), GS–4, OGC, 10635.

Resignations: Cheryl Bacon, Cop Lic; Richard Battle, ASO; David Hartman, Proc; Elias Kallis, CRS F; Franklyn Suliveres, CDS.

Online Users Group Will Discuss User Documentation on April 16

The LC Online Users Group will present a program on user documentation in the Library on Friday, April 16, at noon in the Madison Assembly Room. The speakers will be Lucinda Leonard, FEDLINK network coordinator, Federal Library Committee; Edna Sussman, Information Systems Section of the CRS Office of Automated Information Services; and Arlene Whitmer, chief of the User

Applications Office, Automated Systems Office. Each speaker will discuss both current and future user documentation produced in her area. Questions will be welcome at the end of the presentations.

Coming up in April

Thursday, April 1
Friday, April 2

The Juilliard String Quartet and cellist Bernard Greenhouse will perform works by Schubert, Haydn, and Schumann. In the Coolidge Auditorium at 8 p.m. A limited number of tickets will be distributed free to staff members through the WRA Office beginning the preceding Friday. Tickets are also distributed through Patrick Hayes, 1330 G St. N.W. beginning at 8:30 a.m. on the Monday before the concert.

Friday, April 2

The WRA Choral Society, under the direction of John Watson, will offer a pre-Easter concert of sacred and both traditional and contemporary gospel music. In the Madison Building Assembly Room (LM 649) at 12 noon.

Tuesday, April 6

British scholar John Bird will lecture on Percy Grainger, Australian-born pianist, composer, and collector of folksongs. In the Whittall Pavilion at 4:30 p.m. No tickets are required.

Thursday, April 8

The American Folklife Center will present a program on "White Oak Basketry: An American Tradition" including demonstrations, the screening of both a film and a video tape, and a panel discussion. In the Madison Building Assembly Room (LM 649) at 11:30 a.m.

Thursday, April 8
Friday, April 9

The Juilliard String Quartet will offer the second in its series of concerts this spring and fall devoted to the performance of the entire cycle of Beethoven's string quartets. In the Coolidge Auditorium at 8 p.m. See April 1/2 listing for ticket information.

Tuesday, April 13

Actress Luise Rainer will recite Alfred, Lord Tennyson's *Enoch Arden,* accompanied by the music of Richard Strauss. In the Coolidge Auditorium at 8 p.m. No tickets are required.

Thursday, April 15

The Irish Tradition will perform the first in the American Folklife Center's 1982 outdoor concert series. On the Neptune Plaza, Jefferson Building, from noon to 1:30 p.m. (Indoors in the event of rain) No tickets are required. (The date for this event was given incorrectly in last week's LC *Information Bulletin.*)

Thursday, April 15
Friday, April 16

The Health Services Office will be offering eye tests for the detection of glaucoma (see the special announcement of March 11 to all staff members). In the Health Services Office, LM G40.

Friday, April 16

The Women's Studies Discussion Group will hold a program on "Women Healers" with Jill Gay of the Institute for Policy Studies. In room 324A of the Page School, Jefferson Building, at 12:30 p.m.

The Juilliard String Quartet will offer the last in its series of concerts this spring devoted to the performance of the entire cycle of Beethoven's string quartets. The series will continue in the fall. In the Coolidge Auditorium at 8 p.m. See April 1/2 for ticket information.

Tuesday, April 20

Poet Czeslaw Milosz, 1980 winner of the Nobel Prize for literature, will read from his work. In the Coolidge Auditorium at 8 p.m. No tickets are required.

Wednesday, April 21

The Library of Congress and U.S. Postal Service will unveil a new Library of Congress stamp. In the Coolidge Auditorium at 11 a.m. Sales and an autographing session will take place in the Whittall Pavilion from 10 to 10:45 a.m. and again from 11:30 a.m. to 2 p.m.

Wednesday, April 28

The Library will conduct a Health Benefits Fair to assist staff members in selecting or changing a plan under the Federal Employees Health Program during the Open Season (May 3–28). In Dining Room A (LM 620) of the Madison Building from 11 a.m. to 2 p.m.

Staff members who wish to attend programs or other events during their normal working hours should consult their supervisors.

APPENDIX

Chinese Character Computer Encoding Methods and Library Automation
A Bibliographical Survey

by Chi Wang and Robert Dunn
Chinese and Korean Section, Asian Division

On November 30, 1979, the Library of Congress and the Research Libraries Group (RLG) signed a cooperative agreement, under the terms of which RLG agreed to develop the capability to enter, manage, store, transmit, and output new bibliographic records containing East Asian scripts in a MARC-compatible format, cataloged according to Library of Congress/AACR 2 standards (see the February 8, 1980, LC *Information Bulletin*, pp. 42–43). When this is achieved, LC will begin cataloging East Asian titles online into the RLIN data base. High priority is to be given this project, and an operating system is expected by January 1983 which would produce in machine-readable form all new cataloging of Chinese, Japanese, and Korean language titles executed by LC and RLG member institutions, covering possibly more than 300,000 volumes annually.

The *CEAL (Committee on East Asian Libraries) Bulletin* of June 1980 reported that, in order to implement this agreement, it was proposed to seek a total of $1.3 million from the Ford Foundation, the Mellon Foundation, the National Endowment for the Humanities, and the Hewlett Foundation. A fuller report on the agreement, however, appearing under the title of "East Asian Characters: Ending the Silence" in the *Research Libraries Group News* (No. 2, 1980), indicated that grants had been obtained only from the first three aforementioned foundations, in the amounts of $310,000, $350,000, and $308, 851, respectively.

The Library of Congress, as is well known, has already made much progress in the automation of materials in roman script languages. In the MARC records, there are already over 780,000 entries, with 500 to 600 new entries being added daily. For nonroman scripts, however, there seems to be a number of obstacles to automation. Although LC has decided to input into the MARC data base the romanized records of materials in nonroman scripts such as Cyrillic and the South Asian languages, as well as Tibetan, Thai, and Burmese, the prospects for Arabic, Persian, Hebraic, and the East Asian languages (including Chinese) have been uncertain.

One major obstacle has been a financial consideration. Nonroman script materials in U.S. libraries constitute only a small percentage of the whole, and the expense of automating this comparatively small volume of records may be too high to be cost effective. With respect to languages utilizing the Chinese script, another important consideraton is a technical one that stems from a lack of consensus on such questions as the most desirable and acceptable method of processing Chinese characters, the most efficient and practicable input (and output) system, and the hardware and software that should be selected to interface with existing bibliograpical systems such as MARC, OCLN, and RLIN.

The agreement with RLG will, of course, seek to solve these and other problems. News of the agreement was received with much enthusiasm by the LC's Chinese and Korean Section, which had been following for some time the more specific subject of Chinese character computer encoding methods and library automation (as mutually related fields). The section has collected numerous reports, articles, and other materials on this subject, and the purpose of this bibliographical survey is to share and disseminate these materials, which cover related activities in various areas of the world, including the People's Republic of China (PRC), Taiwan, Korea, Japan, Canada, Great Britain, and the United States.

In the People's Republic of China, although initial interest in computers began as early as 1956 with the formation of the Institute of Computational Techniques in the Chinese Academy of Sciences of Beijing, it was not until December 1978 that the first national meeting was held to exchange information on the coding of Chinese characters. A Xinhua news report in the Foreign Broadcast Information Service *Daily Report* (FBIS/DR) of February 2, 1979, stated that over 30 Chinese character encoding plans were submitted at the conference, and that "Chian Institute of Chinese Character Encoding Research" was established. An article in the *China Trader* (Summer 1979) indicated that this institute is now headquartered in the Institute of Scientific and Technical Information of China (ISTIC) in Beijing. A follow-up article in the *Guangming Daily* on March 14, 1979, divides the encoding methods proposed at the meeting into four categories—those to (1) input the entire character, (2) decompose or divide up the form of the character, (3) use the pinyin romanization system for inputting, and (4) combine the use of phonetics and form.

Probably the most publicized encoding method in the PRC is that proposed by Zhi Bingyi and his

associate, Qian Feng, which is featured in articles in the *Beijing Review* (January 5, 1979) and the *China Pictorial* (No. 2, 1979), and is described in some detail in the October 1978 issue of *Shanghai Ziran Zazhi*, as well as in one of the four articles in *Hanzi xinxi chuli* (Chinese Character Data Processing) published by the China Social Sciences Press (Beijing, 1979). Already in booklet form is also an encoding system devised by Chen Jianwen of the Nanjing University Library in June 1979 entitled *Hanyu shuangpin Hanzi bianma* (Chinese Character Encoding by Dual Romanization), which encodes Chinese characters phonetically using four roman alphabet letters.

Numerous articles have appeared in the *Guangming Daily* on Chinese character encoding, including one by Wang Guangyi entitled "Modernization of Language Transmission and Written Language Reform" on May 5, 1978 (English translation in FBIS/DR on February 2, 1979); by Ni Guangnan entitled "Data Processing in Chinese Characters" on March 28, 1979 (JPRS 75, 107; February 11, 1980); and by Chen Mingyuan entitled "Data Processing of Chinese Characters and Language Reform" on April 25, 1979 (JPRS 73, 862; July 19, 1979).

Press reports show other new and rapid developments in the PRC.

The Hong Kong *Ta Kung Pao* English Weekly Supplement of March 13, 1980, reports that a new computer capable of handling Chinese characters, known as the 8700, manufactured by the Casio Computer Co. of Japan and marketed by Auto Business Computer Ltd. of Hong Kong, was introduced during the Electronic Products Exhibition held in Beijing in February 1980.

On April 4, 1980, the Xinhua News Agency reported the trial production in Hanzhou of a data processing unit for Chinese characters invented by Sheng Jian of the Research Institute of Automation in that city, using a pinyin keyboard, and also a new input method for Chinese characters "according to strokes and characteristics of words," worked out by Li Jinkai of Beijing Normal University and Li Yiming of the Tianjin Municipal Computation Institute.

On July 16, 1980, the *Guangming Daily* showed the photograph of a Chinese character data processing machine developed by the Institute of Computational Techniques of the Chinese Academy of Sciences which uses a light pen in conjunction with a CRT screen.

On July 21, 1980, the Xinhua News Agency reported that the Beijing Dongfang Scientific Apparatus Plant has developed a new method of classifying characters for an input system, using numerical annotations for strokes and phonetic sounds of the Chinese characters (FBIS/DR, July 25, 1980).

Besides these, the reports of various delegations which have visited the PRC in recent years contain considerable information on activities there in the fields of Chinese character inputting systems and library automation. The *CEAL Bulletin* is a convenient source of such information. The issue of June 1979 contains a brief report of the visit of the CETA (Chinese-English Translation Assistance) Language, Lexicography, and Computer Applications Delegation in April 1979; the February 1980 issue contains reports of the visit of the 12-member U.S. Library Delegation in September 1979, and the trip of the 11-member Delegation of East Asian Librarians in September–October 1979; and the June 1980 issue contains part two of the report of the latter delegation. All visitors found that although the work on Chinese character encoding and library automation was still in the early experimental stages, there was an enthusiastic and active interest, and a determined effort, to achieve solutions to the problems faced.

In addition, there is an account of the Library Automation Discussion Group meeting in June 1980 of the Library and Information Technology Association, which includes a report by Hank Epstein, who had recently returned from a trip to the National Library of Beijing, where he gave a series of seminars on library automation (LC *Information Bulletin*, October 3, 1980). It is interesting to note that Mr. Epstein also witnessed no operational automation activity and found that the unique problem for China in automation is the lack of a standard computer character code for automating a "basic Chinese character set, which consists of over 6,000 characters."

Without a doubt, before full and adequate consideration can be given to the question of selecting the most desirable and acceptable or the most efficient and practicable input and output systems for the processing of Chinese characters, and especially the question of choosing the most feasible system for library use and for input of bibliographic information, there must be a more or less universally accepted and standardized common-use character set. In the past few years, several such sets have been proposed or announced in the various regions or countries of East Asia. Now, most recently, a "Code of Chinese Graphic Character Set for Informaton Interchange (Primary Set)" has been officially announced in the PRC (see the *Renmin ribao* of March 28, 1981, and the Hong Kong *Ta Kung Pao* English Weekly Supplement of April 2, 1981).

The code was drafted by the North China Institute of Computing Technology and presented by the Fourth Ministry of Machine Building. The primary set includes 6,763 general characters and 682

symbols of ordinal numbers, numerical characters, the Latin alphabet, the Japanese kana, the Greek alphabet, the Russian alphabet, Chinese phonetic symbols, and Chinese phonetic-annotated letters. An auxiliary set is now being formulated which will consist of the complex forms of characters, variant forms of characters, archaic characters, dialect characters, and so forth. The China Association for Standardization also announced on March 26 that China will apply for registration of this new code with the 97th Technical Committee of the International Organization of Standardization (ISO).

An English translation of the introduction to this code has become available and contains the following additional significant details. Of the 6,763 general characters in the primary set, 3,755 are "most commonly used characters" (which most people know how to pronounce) arranged according to Chinese phonetic symbols in the first level, while 3,008 include some "strange" and "uncommon" characters arranged according to (180+) radicals in the second level. The graphic form of the primary set is based on the General Table of Simplified Chinese Characters (May 1964) and does not include the simplified characters in the Second Draft Plan for Simplified Chinese Characters (December 1977). Selection of the characters was based on the "Table of Printed Commonly Used Chinese Characters" jointly published by the Committee on Reforming the Chinese Written Language and Ministry of Culture (first designed in 1953 and revised in 1965). At present, the simplified, variant, and complex forms with the same meaning all have the same code, but they are to be separately coded in the future. The auxiliary set is expected to have about 8,000 characters and to be completed within one to two years. Thus, both sets will have about 15,000 characters altogether.

In Taiwan, a 1,331-page volume entitled *Proceedings of the First International Symposium on Computers and Chinese Input/Output Systems, Taipei, Taiwan, Republic of China, August 14–16, 1973* shows an early interest that had already gained momentum in the early 1970s. Although not yet received in the Library of Congress, proceedings for subsequent years—1975, 1977, and 1978—have also been issued. These later volumes are listed in the excellent four-page bibliography of references appearing in Ching-chun Hsieh's background report on "Chinese Data Processing in Taiwan, R.O.C.," which was one of the papers delivered at the American Council of Learned Societies' Conference on East Asian Character Processing in Automated Bibliographic Systems at Stanford University on November 8–10, 1979 (see the *CEAL Bulletin* of February 1980).

Among the works listed by Professor Hsieh is *Chung wen shu ju shu ch'u hsi t'ung* (Chinese Input/Output Systems), published in 1973 by the Institute of Mathematics, Academia Sinica, Taipei. Several other similar works, not listed, include *Chung wen tzu liao ch'u li tien tzu hau shu ju shu ch'u hsi t'ung* (Computer Input/Output Systems in Chinese Character Data Processing), Taipei, 1975, and *Chung wen shu ju ven chiu* (Research on Chinese Character Inputting) by Chu Fu and others, Taipei 1978.

Professor Hsieh also lists a number of dictionaries, including *Liu's Chinese-English Dictionary* by Liu Dah-jen, which was actually published in the United States in 1978 by The Asian Associates, New York, and contains in its 1,554 pages not only dictionary entries, but also an explanation of Liu's Romanized Built-in-Tonal System. The same publisher has also issued *The Comprehensive Dictionary of Chinese Character Index*, 1979, which provides a comprehensive index of 9,233 Chinese characters by combining such indexes as component code, component phonetic symbol, Liu's tonal built-in romanization system, Mandarin phonetic, radical stoke, four corner numbers, and Chinese telecode.

It should be noted here that a new Chinese Information System has been developed recently by Professor Hsieh and his colleagues at the Taiwan Institute of Technology in Taipei. According to Professor Hsieh, five different input systems are contained on the same keyboard.

The encoding system which appears to be in most prevalent use in Taiwan is the Wang Laboratories' Three Corner System. A brief history of the firm's activities, which began as early as 1951, and a report on its recent activities appear in the *Metro Chinese Journal* (Hua fu hsin wen pao) of February 2, 1980. The system is fully explained in *The Digitalized Chinese Dictionary*, by Hu Li-jen and others (Taipei, 1977); in an article entitled "The Digitalized Chinese Dictionary: 'Three Corner Coding Method,'" in *Ming Chuan Journal* (March 1978); as well as in the *Training Manual for the Three Corner Coding Method* (Taipei, 1979). A summary of Margaret Fung's paper on "Library Automation in Taiwan," delivered at the CEAL Plenary Session in Washington, D.C., which appears in the *CEAL Bulletin* (June 1980), describes how the Three Corner System has been used by the National Central Library and Wang Laboratories to compile a national union list of Chinese periodicals, which records the holdings of 6,543 journal titles. A news report in the Hong Kong *Ta Kung Pao* English Weekly Supplement (February 12, 1981) recounts that an ideographic word processor using the Three Corner Coding Method has been introduced into the Hong Kong market through China Consultants International (HK) Ltd., a company specializing in

translation, publishing, and research, which had signed a contract with Wang.

The *National Central Library Newsletter* (August 1980) outlines the Project for Library Automation adopted by the National Central Library in April 1980, which includes research regarding a Chinese MARC project, for which drafts have already been completed on input form, access point, and system flow. The same issue also reports on the visit of Library of Congress automation specialist James E. Agenbroad to the National Central Library in June 1980 for lectures and discussions on the subject. Mr. Agenbroad (together with Barbara Roland) also represented the Library of Congress and delivered papers at the International Workshop on Chinese Library Automation in Taipei in February 1981 (see the LC *Information Bulletin*, April 3, 1981). Thirty papers were presented at the sessions, which were devoted to the Chinese character code, Chinese language and the computer, Chinese cataloging rules, and Chinese MARC, and so on. Printed copies of the *Chinese Character Code for Information Interchange* (April 1980) and the *Symbol and Character Table of the Chinese Character Code for Information Exchange* (February 1981) were made available.

According to these volumes, the entire code, as envisioned, has a three-dimensional structure of 94×94×94 positions, that is, 94 positions in 94 sections in 94 planes. Planes 1 to 8 have been designated for the more than 50,000 Chinese characters; planes 9 to 64 for the variations and simplified forms of each Chinese character; and planes 65 to 94 for the user's option, for Manchurian, Mongolian, Tibetan, or Japanese Kanji, and so on.

For plane 1, sections 1 and 2 are for punctuations and special symbols; section 3 for the ISO 646 seven-bit coded character set for information processing interchange; sections 4 to 10 for user's option or expansion; section 11 for 35 Chinese punctuations; sections 12 to 14 for the 214 radicals; section 15 for the 41 Chinese numerical characters, 37 Chinese phonetic symbols, and four tone marks; while the 4,807 most frequently used characters take up only sections 16 to 67 of plane 1. The last covers all the characters taught in Chinese primary schools and all the characters recommended by the International Chinese Newspaper Association in November 1969, compiled according to a study by the Taiwan Normal University in 1978, and published by the Ministry of Education, in 1979. The 4,807 characters are arranged according to radical, stroke-count, and stroke order. Another set of over 16,000 characters, arranged according to the same order by radical, takes up sections 68 to 94 of plane 1, sections 2 to 94 of plane 2; and sections 2 to 54 of plane 3.

Noteworthy for showing Taiwan's general interest in Chinese character sets are two articles in the *Central Daily News* (Chung yang jih pao), Taipei. One by Hsu Ling-hsiang on "The Shape and Form of Chinese Language Computers" (September 14, 1980) emphasized the need to coordinate action on the governmental level to achieve a Chinese character set with standard shapes and forms. The other, by Wang Chin-t'u on "How the 'Exchange of Standard Codes in Chinese Data Processing' Was Compiled," (October 6, 1980) describes the compilation of a Chinese character set of over 16,000 characters, including the 13,950 (actually 13,587) characters in the *Tz'u hai (Cihai)* published in Hong Kong in 1965.

In South Korea, as described by Yakyung Yoo in a paper on "Korean Character Processing Systems" presented at the ACLS Conference at Stanford in November 1979 (see the *CEAL Bulletin* of February 1980), the Korean *hangul* readings may present and involve choice among a number of Chinese characters, and input is a labor-intensive process. Thus, in one case, it took six man-months to input 25,000 records of bibliographic materials including Chinese characters.

In Japan, in a paper on "Kanji Input/Output in Use at Tsukuba University" also given at the ACLS Stanford Conference, Kazuhiko Nakayama sums up the situation there as follows:

> At the moment there are a number of ways available in Japan to enter *kanji* into the computer, but no single decisive system that can be used universally has emerged yet . . . . The tablet system is becoming the *kanji* input system in most common use, in comparison with the shift key system which was popular several years ago . . . . Under the tablet system, one key corresponds to one character, while the shift key system correlates one key with multiple characters . . . . The touch method . . . is gaining popularity. Another *kanji* input system adopts software that converts *kana* to *kanji* . . . .

Another paper at this conference by Hideo Kaneko on "Current Bibliographic Applications of Automated Vernacular Chinese Character Processing in Japan" notes developments in the field over the past decade in three major Japanese institutions, including the National Diet Library, and indicates that the *Japanese National Bibliography Weekly* (Nohon Shuho) is now compiled in computer form. These papers show the relatively advanced state of Japan's activities in this field.

Tokutaro Takahashi of the National Diet Library has recognized, and discusses, the international problem of standardization of Chinese character sets in his paper entitled "A Proposal for a Standardized Common Use Character Set in East Asian Countries"

(*CEAL Bulletin*, October 1979). Although he was unaware at the time of the latest developments in the PRC and Taiwan on the establishment of standard character sets, he presents details of the Japanese version, which was promulgated by the Japan Industrial Standard for Kanji coding system in January 1978, which consisted of 108 diacritics, 10 numerals, 52 Roman letters, 48 Greek letters, 66 Cyrillic letters, 169 *kana*, and 6,349 *kanji*, for a total of 6,802 characters. The coded *kanji* characters are divided into two groups. The first level group includes 2,965 characters most frequently used, and the second level group includes 3,384 characters. He noted that Japan, Korea, the PRC, and Taiwan have all been working on their own character sets and proposed a Common Core Character Set, which will use a single code for each character, although somewhat different in form as used in the various East Asian countries.

A representative view of activities in Canada can doubtless be derived from the paper submitted by Henry Hsing at the CEAL Conference in Los Angeles in March 1979 on the history and present status of the University of Toronto Library Automation System (see the *CEAL Bulletin*, June 1979). This report indicates that, in 1974, the University of Toronto was doing MARC-derived online cataloging of western-language materials and, in 1975, was doing original cataloging of materials in nonroman scripts through a dual procedure of placing romanized entries in the library's data base while manually producing cards in the vernacular script for its East Asian Library card catalog. It would appear that here an attempt is made to achieve library automation of East Asian materials without the use and development of an input system for Chinese characters. As was indicated at the discussion meeting, the Library of Congress has also since 1973 been using a similar dual system for Oriental-language serials, by producing three-by-five printed cards in the manual mode in the East Asian script while inputting records in romanized form in the MARC Serials data base.

In Great Britain, as reported in articles in the *New York Times* on January 25, 1978, in *Computers and People* in May 1978, and in *New Scientist*, February 16, 1978, a drum-type Chinese ideograph encoder has been invented and developed by Robert Sloss and Peter Nancarrow of Cambridge University and marketed by Cable and Wireless, Ltd. This procedure uses a drum matrix containing over 4,000 characters which can be arranged according to different index systems. With the use of this encoder, whose capacity is expected to be expanded to 10,000 characters, the University of Cambridge has a project to assess the processing of Chinese characters in automated library catalogs. The Cambridge University Library and the British Library are the primary centers in England at present for Chinse character data processing (see the report on Alan Tucker's paper in the *CEAL Bulletin*, February 1980).

As for the United States, probably the most extensive use of computers for processing Chinese characters is done by the CETA (Chinese-English Translation Assistance) Group in compiling Chinese-English dictionaries of general and technical terms. The method of input it uses is by telecode with index functions, and by pinyin, with certain refinements, as described in an article by Jim Mathias in the *Proceedings of the First International Symposium*. A delegation organized by CETA visited the PRC in April 1979. The full report of this trip was published in 1980 by the Washington State University Press under the title, *Computers, Language Reform, and Lexicography in China*.

The proceedings also contain an article entitled "Chinese Input-Output with Standard IBM Selectric Typewriter Terminal," which describes a multicorner indexing system developed by IBM for entering Chinese characters using the numeric keys of a standard computer terminal, each character being coded with one to nine digits. In IBM's Stockholders' Quarterly Report of October 11, 1979, it is indicated that new products of the firm have been developed constituting "a total system for entering, processing, displaying and printing computer information in graphic symbols, or ideographs, that make up the written Japanese and Chinese languages," including a data entry unit with a special keyboard for entering ideographs into punch cards.

A recently developed, but apparently still untested, Chinese character encoding system is set forth in the four-volume edition of a work entitled *Peking Alphabetic Dictionary* (Bbeeijing pinxxiee ziidiaann), by T'ien Hung-wen (Tiann Honng Wenn), published by World Journal Press (East Lansing, Mich., 1978), which represents the four tones by letter-doubling and distinguishes homophones by silent word endings.

A system already operative is the IPX/System 54 Chinese computer at IPX Ideographics, Inc., in Sunnyvale, Calif. It was used in conjunction with the IBM 370 at Stanford University to collate the indexes for the *Bibliography of Chinese Government Serials 1880–1949* (Stanford. Calif., 1979), the text of which was directly printed by this computer. The Chinese and Korean Section of the Library of Congress has on file a report of November 1976 entitled "An On-line Chinese Language Handwriting Recognition System" which describes the system used, involving input by a ballpoint pen, with each Chinese character defined as a unique sequence of fundamental strokes. The

system was developed by the Stanford Research Institute.

All of this profuse and scattered information on developments in Chinese character computer encoding methods and library automation shows extensive activity and intensive interest in these related fields. It appears that much effort in the work involved is expended in individual and isolated projects, while increased intercommunication and concerted endeavors might help to solve common problems. The computer experts tend to exphasize the hardware and software technical aspects of the problems involved, while the linguists emphasize the encoding methods, neglecting the special needs and requirements of library automation and the technical questions of adaptation of existing automation systems. Thus there is great need for a coordinated program and for meetings or organizations, national and international, to provide more opportunities for exchange of views and mutual suggestions.

A few additional related references on materials in the *CEAL Bulletin* and the LC *Information Bulletin* are listed below:

CEAL Bulletin

Karl Lo, "East Asian Scripts and Library Automation in North America: 'Print Chain Expansion' or 'File Enhancement'?," February 1979.

Report of discussion on library automation at 1979 CEAL General Meeting and a report of a panel discussion on "Issues and Problems of Non-Roman Scripts" at 1979 ALA Annual Conference, June 1979.

Summary reports of presentations on "East Asian Libraries and Automation" by John W. Haeger, Karl Lo, and Robert E. Ward at the CEAL meeting in Washington, D.C., June 1980.

LC *Information Bulletin*

"New Changes in Timetable for Automated Catalogs Issued," September 2, 1977.

"LC Considering Pilot Project on Automating Nonroman Scripts," November 19, 1977.

"Library Offers Plans for Romanization," October 27, 1978.

"Conference Takes Up Machine Processing of East Asian Scripts," in summary report of the conference sponsored by the East Asian Library Program of the American Council of Learned Societies, January 11, 1980.

Report of discussions by Lois Kershner on current RLG activities with respect to agreement with LC, in "Library and Information Technology Association," October 3, 1980.

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